What is claimed is:

1. An apparatus comprising:

an annular cold plate;

a first reflexive, circumfluent channel disposed within the annular cold plate traversing from a first inlet along a first direction to a first outlet to facilitate flowing of a first coolant fluid to remove heat from a heat source substantially disposed at a center of the annular plate; and

a second reflexive, circumfluent channel disposed within the annular cold plate traversing from a second inlet along a second direction to a second outlet to facilitate flowing of a second coolant fluid to remove heat from the heat source.

2. The apparatus of claim 1, wherein the second circumfluent channel is further disposed relatively to the first circumfluent channel with at least a first portion of the first circumfluent channel at the first outlet end of the first circumfluent channel insulating a second portion of the second circumfluent channel at the second inlet end of the second circumfluent channel.

3. The apparatus of claim 2, wherein the second circumfluent channel is further disposed relatively to the first circumfluent channel with a third portion of the second circumfluent channel at the second outlet end of the second circumfluent channel insulating a fourth portion of the first circumfluent channel at the first inlet end of the first circumfluent channel.

4. The apparatus of claim 1,wherein the first and second circumfluent channels cross each other at least one time.

5. The apparatus of claim 1, wherein the first and second inlets are one of the same flow splitting inlet, and the first and second coolant fluids are first and second portions of the same coolant fluid.

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6. The apparatus of claim 1,wherein the first and second outlets are one of the same flow combining outlet, and the first and second coolant fluids are first and second portions of the same coolant fluid.

7. The apparatus of claim 1, wherein the annular cold plate, the first and second circumfluent channels are all co-planar, having substantially the same height.

8. The apparatus of claim 7, wherein said height is about 0.5 inches.

9. The apparatus of claim 1, wherein the annular cold plate occupies a first plane, and the first and second circumfluent channels occupy a second plane orthogonal to the first plane.

10. The apparatus of claim 1, wherein the first direction is a selected one of a clockwise and a counter-clockwise direction, and the second direction is an opposite, complementary direction.

11. The apparatus of claim 1, wherein at least one of the first and second circumfluent channels is at least partially filled with a thermally conductive surface enhancing material.

12. The apparatus of claim 1, wherein at least one of the first and second circumfluent channels is at least partially filled with a thermally conductive surface enhancing material having geometric features selected from a group consisting of pins and fins.

13. The apparatus of claim 1, wherein an outlet end of at least one of the first and second circumfluent channels is made of a selected one of lower thermal conductivity material and thermal insulator.

14. A method comprising:

providing a coolant fluid to an annular cold plate having first and second reflexive circumfluent channels to remove heat from a heat source substantially disposed at a center of the annular cold plate; and

flowing a first and a second portion of the coolant fluid through the first and second circumfluent channels, respectively.

15. The method of claim 14, wherein said providing comprises providing the coolant fluid at a common inlet of the annular cold plate, and the method further comprises splitting the coolant fluid into said first and second portions for the first and second circumfluent channels, respectively.

16. The method of claim 14, where said flowing comprises flowing the first portion of the coolant fluid through the first circumfluent channel in a selected one of a clockwise and a counter-clockwise direction, and flowing the second portion of the coolant fluid through the second circumfluent channel in a complementary opposite direction.

17. The method of claim 14, wherein said flowing comprises at least one of flowing the first portion of the coolant fluid through a first conductive filling within the first circumfluent channel, and flowing the second portion of the coolant fluid through a second conductive filling within the second circumfluent channel.

18. The method of claim 14, wherein said flowing comprises at least one of flowing the first portion of the coolant fluid through a first conductive surface area enhanced filling within the first circumfluent channel, and flowing the second portion of the coolant fluid through a second conductive surface area enhanced filling within the second circumfluent channel.

19. The method of claim 14,wherein the method further comprises recombining the first and second portions of the coolant fluid after flowing the first and second portions through the first and second circumfluent channels respectively, and outputting the re-combined coolant fluid through a common output of the annular cold plate.

20. The method of claim 14, wherein the coolant fluid is provided to the annular cold plate at a first temperature that is sufficiently below an ambient temperature, such that the coolant fluid exits the annular cold plate at a second temperature, higher than the first temperature, but still below the ambient temperature.

21 ~~20~~. A system comprising:

an annular cold plate to mate with a die plate, including

a first reflexive, circumfluent channel disposed within the annular cold plate traversing from a first inlet along a first direction to a first outlet; and

a second reflexive, circumfluent channel disposed within the annular cold plate traversing from a second inlet along a second direction to a second outlet; and

an optical assembly including a light source to facilitate inspection of a die mounted to the die plate.

22 ~~21~~. The system of claim ~~20~~ 21, wherein the second circumfluent channel is further disposed relatively to the first circumfluent channel with at least a first portion of the first circumfluent channel at the first outlet end of the first circumfluent channel insulating a second portion of the second circumfluent channel at the second inlet end of the second circumfluent channel.

23 ~~22~~. The system of claim ~~21~~ 22, wherein the second circumfluent channel of the annular cold plate is further disposed relatively to the first circumfluent channel annular cold plate, with a third portion of the second circumfluent channel at the second outlet end of the second circumfluent channel insulating a fourth portion of the first circumfluent channel at the first inlet end of the first circumfluent channel.

24 ~~23~~. The system of claim ~~20~~ 21, wherein the first and second circumfluent channels of the annular cold plate cross each other at least one time.

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~~24.~~ The system of claim ~~20~~, wherein at least the first and second inlets of the first and second circumfluent channels of the annular cold plate are one of the same flow splitting inlet, or the first and second outlets of the first and second circumfluent channels of the annular cold plate are one of the same flow combining outlet.

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~~25.~~ The system of claim ~~20~~, wherein either the annular cold plate, the first and second circumfluent channels of the annular cold plate are all co-planar, or the annular cold plate occupies a first plane, and the first and second circumfluent channels of the annular cold plate occupy at least a second plane, orthogonal to the first plane.

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~~26.~~ The system of claim ~~20~~, wherein at least one of the first and second circumfluent channels of the annular cold plate is at least partially enclosed with a thermally conductive material.

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~~27.~~ The system of claim ~~20~~, wherein at least one of the first and second circumfluent channels of the annular cold plate is at least partially filled with a thermally conductive surface area enhancing material.

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~~28.~~ The system of claim ~~20~~, wherein an outlet end of at least one of the first and second circumfluent channels of the annular cold plate is made of a selected one of lower thermal conductivity material and thermally non-conductive material.